

March 20, 2008

**Lisa Reynolds Fogarty, United State Geological Survey; Gary Kohlhepp,
Michigan Department of Environmental Quality**

In 2001-2002, the U.S. Geological Survey (USGS) conducted an atrazine study in the St. Joseph River Basin, draining parts of southwestern Michigan and northern Indiana. Atrazine concentrations were measured in stream- and pore water at 48 locations throughout the basin. In 2005, the USGS and the Michigan Department of Environmental Quality (MDEQ) conducted a statewide water-quality study using immunoassay methods to screen for selected pesticides in 24 stream sites. The results from these studies suggest that pesticide concentrations generally are low, with the highest levels occurring in late spring. Highest concentrations tended to occur in agricultural areas, although differences were not statistically significant from urban sites. Sites in areas with little urban or agricultural development had the fewest pesticide detections. Immunoassay methods were a reliable, cost-effective method to screen a large number of samples for selected pesticides used in these studies.

The MDEQ and Michigan Department of Agriculture (MDA) have a number of requirements and activities in place to ensure adequate monitoring and assessment of pesticide risks. Drinking water system operators are required to routinely monitor for 33 synthetic organics compounds, including many pesticides. The MDEQ has a formal procedure for evaluating pesticide toxicity and generating water quality criteria for these substances. The MDEQ has scheduled TMDLs to be developed by 2010 in five inland lakes for chlordane, and additional TMDLs to be completed by 2012 for chlordane and DDT in Lake Huron, Lake Michigan, Lake Superior, and the Detroit River. The MDA oversees a voluntary groundwater pesticide monitoring program in which over 4,300 wells have been tested since 1989 using standard analysis, and another 22,000 wells have been screened for atrazine by immunoassay.

Notes:

[illegible]